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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,675	09/22/2003	Serguei G. Anikichev	COHD-5050	9391

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STALLMAN & POLLACK LLP
Attn: Michael A. Stallman
353 Sacramento Street
Suite 2200
San Francisco, CA 94111

EXAMINER

VANNUCCI, JAMES

ART UNIT PAPER NUMBER

2828

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,675

Applicant(s)

ANIKITCHEV ET AL.

Examiner

Jim Vannucci

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-12 is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 2 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-22-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 13 is objected to because of the following informalities: it appears the word "from" should be inserted after the word "distance" in line five. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, this claim is vague because there are no antecedent basis for the limitations "said third lens", "said front focal plane" and "said back focal plane" and without these limitations being defined the scope of the claim can not be determined.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Reznichenko et al.(6,433,934).

Claim 1, figures 3 and 4 disclose a plurality of diode-lasers(20) arranged in an elongated linear array spaced apart by a distance between their centers having a slow axis parallel to the length direction and a fast axis perpendicular to the slow axis with light being emitted from each of the diode-lasers as a beam diverging in both the fast and slow axes in a general direction of propagation mutually perpendicular to both the fast and slow axes, an optical system having a longitudinal axis parallel to the propagation direction of light from the diode-lasers and having mutually perpendicular fast and slow axes corresponding to the fast and slow axes of the diode-lasers(20), the optical system having a plurality of components including a first lens(22) having positive optical power in the fast axis(fig. 4) and zero optical power in the slow axis(fig. 3), a linear array of cylindrical micro lenses(26) corresponding to each of the diode-lasers(20) having a slow-axis spacing equal to the spacing of the diode-lasers in the diode-laser array where each micro lens has positive optical power in the slow axis(fig. 3) and zero optical power in the fast axis(fig. 4) and a front focal plane and a back focal plane, where the micro lens array is located at a distance from the emitters of the diode-lasers(20) greater than the focal length of lenses in the micro lens array(26) but sufficiently closes to the emitters of the diode-lasers(20) that each micro lens receives light from only the diode-laser corresponding thereto, and where the optical system components are selected and arranged to form overlapping elongated images in a

predetermined plane(15) that are cross-sections of the beams from the diode-lasers at a plane corresponding to the front focal plane of the micro lens array(26).

Claim 3, the components of the optical system are arranged to focus the fast axis rays in the back focal plane of the positive lens(22), the front focal plane of the third lens(28) is aligned with the back focal plane of the micro lens array(26) and the predetermined plane of the images is the back focal plane of the third lens(28).

Allowable Subject Matter

6. Claims 4-12 are allowed.
7. Claims 2 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter.

While all of the optical elements recited in these claims can be found in the prior art, the arrangement of these optical elements as recited was not found in the prior art. Also, combining prior art references to form the recited optical element arrangements can only be done with hindsight reasoning. Consequently, these claims are allowable subject matter.

The limitations that most contributed to the recitations being allowable subject matter are the limitations concerning a second lens having negative optical power in the

fast axis and zero optical power in the slow axis, or diverging the light in the fast axis and collimating the light in the slow axis.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Some examples of analogous prior art are Ben Oren et al.(5,969,872), Whitney(6,356,380) and Rekow(6,773,142).

Correspondence

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jim Vannucci whose phone number is (571) 272-1820.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (571) 273-8300.


James Vannucci